

**DYSART DRAIN AT EL MIRAGE ROAD
FCD GAGE ID# 5423**

STATION DESCRIPTION

LOCATION – The gage is located on El Mirage Road approximately one-half mile north of Glendale Avenue. The gaging equipment is on the northeast corner of the bridge crossing at El Mirage Road. Latitude N 33° 32' 37.1", Longitude W112° 19' 26.6". Located in the SW1/4 SW1/4 NW1/4 S01 T2N R1W in the El Mirage 7.5-minute quadrangle.

ESTABLISHMENT – The gage was established on March 7, 1997.

DRAINAGE AREA – Approximately 58.2 mi²

GAGE – The gage is a pressure transducer type instrument. Elevation 0.20 feet gage height.

The staff gage needs further evaluation.

There is one crest gage at this location. The pin elevation is 1.08 feet gage height, levels of November 9, 1998. The crest gage is mounted at an angle. To get gage height readings from stick high water marks, the distance along the stick is measured and compared to a plot in the station folder to get gage height.

ZERO GAGE HEIGHT - Zero gage height is defined as 1,052.20 feet M.S.L.

HISTORY – No previous gaging at this location. A gage was installed June 23, 1994 upstream from the El Mirage Road bridge but was removed for construction on December 26, 1995. This new gage was installed on March 7, 1997 following construction. On January 20, 1999 a sonar device was installed and the PT removed. The sonar device became ID# 5423. On February 18, 1999, the PT was re-installed and the sonar device was retained with the sonar ID becoming 5422 and the PT 5423. On July 13, 2000, the PT was found destroyed and it was removed. The sonar device retains the #5422 ID number. Acoustic sensor removed and replaced with pressure transducer on January 18, 2006. PT has ID number 5423.

REFERENCE MARKS –

RM1 is a MCDOT brass tablet located in a hand hole on the east side of the road just north of the channel. Its elevation is 23.67 feet gage height, or 1,075.87 feet M.S.L., levels of March 13, 1997.

RM2 is an FCD brass tablet located on the southeast bridge rail. Elevation 25.44 feet gage height, or 1,077.64 feet M.S.L., levels of March 13, 1997.

RP1 is a white paint spot located on the channel concrete along the PT conduit about two feet south of the standpipe. Elevation 14.71 feet gage height, or 1,066.91 feet M.S.L., levels of March 13, 1997.

CHANNEL AND CONTROL – The channel is a concrete lined trapezoidal shaped, constructed channel. The channel is straight up and downstream of the gage location. The Agua Fria River is approximately 1,000 feet downstream from the gage. The channel is control for all levels. By the spring of 2011, the channel has become clogged with vegetation in the channel as well as downstream near the outfall to the Agua Fria River.

RATING – The current rating is Rating #1 for this gage. It was developed from an HEC-RAS model of surveyed cross sections.

DISCHARGE MEASUREMENTS – Direct measurements could be made by wading. However, because of the steep sides and steep channel slope, water velocities may be high. Proceed with extreme caution. Higher direct measurements might be doable from the bridge. Indirect measurements with a slope conveyance survey could be made following an event.

POINT OF ZERO FLOW – The invert of the channel at the gage cross section is defined as the PZF and is at 0.00 feet gage height.

REGULATION – A detention basin is upstream approximately three river miles.

DIVERSIONS – None known

ACCURACY – Good

JUSTIFICATION – Monitor flows in Dysart Drain and into the Agua Fria River.

UPDATE – July 14, 2011
D E Gardner